

Amendments to the Claims

1. *(Cancelled)*

2. *(Currently Amended)* An electronic device as claimed in claim 1; An electronic device as claimed in claim 3, wherein

the peripheral area is located around the core area;

a ground plane is defined in the peripheral area on the second side of the carrier substrate, which ground plane is the interconnect for mutually interconnecting the ground connections of the peripheral functionality and the core functionality, and

interconnects between the contact pads and the bond pads of the peripheral functionality are defined on the first side of the carrier substrate, which interconnects have a transmission line character

3. *(Currently Amended)* An electronic device comprising:

at least one semiconductor device provided, on a side, with a plurality of bond pads; and

a carrier substrate comprising a layer of electrically insulating material and having a first side and an opposed second side, the first side and the opposed second side are each provided with an electrically conductive layer, on which first side bond pads are present which are suitable for coupling to the bond pads of the at least one semiconductor, and on which second side contact pads for external coupling are provided, the contact pads and the bond pads being electrically interconnected according to a desired pattern, a first portion of the contact pads being defined for ground connection, a second portion of the contact pads being defined for voltage supply connection and a third portion of the contact pads being defined for signal transmission, in said electronic device

the at least one semiconductor device is provided with core functionality and peripheral functionality, the core functionality and the peripheral functionality each being provided with voltage supply connection and ground connection,

the carrier substrate is laterally subdivided into a core area and a peripheral area, in which core area the contact pads for the core functionality are provided and in

which peripheral area the contact pads for the peripheral functionality are provided,
wherein

the carrier substrate comprises at least one interconnect for interconnecting the
ground connections of the peripheral functionality and the core functionality, and

means for decoupling the voltage supply of core and peripheral functionality
to the common ground are present.

An electronic device as claimed in claim 1;

wherein the means for decoupling comprise a decoupling capacitor in
the peripheral functionality, which is located either in the at least one semiconductor
device or at the carrier substrate.

4. (*Currently Amended*) An electronic device as claimed in claim 2; An electronic
device as claimed in claim 3, wherein the contact pads in the core area are defined in
an array, the pads for ground connection and for supply connection being arranged in
the array such that each of the pads for ground connection has pads for supply
connections as the closest neighbor pads.

5. (*Currently Amended*) An electronic device as claimed in claim 2; An electronic
device as claimed in claim 3, wherein the contact pads in the peripheral area are
defined in subgroups, each subgroup comprising one contact pad for voltage
connection or one contact pad for ground connection, and several contact pads for
signal transmission, all of the pads for signal transmission having the contact pad for
either voltage or ground connection as a neighboring pad.

6. (*Currently Amended*) An electronic device as claimed in claim 1; An electronic
device as claimed in claim 3, wherein the ground plane a ground plane is defined, in
the core area, on the first side of the carrier substrate and is coupled to the ground
plane in the peripheral area through vertical interconnects.

7. (*Currently Amended*) An electronic device as claimed in claim 1; An electronic
device as claimed in claim 3, wherein a stiffening layer is present on the first side of
the carrier substrate, thereby covering part of the electrically conductive layer.

8. (*Currently Amended*) An electronic device comprising:

at least one semiconductor device provided, on a side, with a plurality of bond pads; and

a carrier substrate comprising a layer of electrically insulating material and having a first side and an opposed second side, the first side and the opposed second side are each provided with an electrically conductive layer, on which first side bond pads are present which are suitable for coupling to the bond pads of the at least one semiconductor, and on which second side contact pads for external coupling are provided, the contact pads and the bond pads being electrically interconnected according to a desired pattern, a first portion of the contact pads being defined for ground connection, a second portion of the contact pads being defined for voltage supply connection and a third portion of the contact pads being defined for signal transmission, in said electronic device

the at least one semiconductor device is provided with core functionality and peripheral functionality, the core functionality and the peripheral functionality each being provided with voltage supply connection and ground connection,

the carrier substrate is laterally subdivided into a core area and a peripheral area, in which core area the contact pads for the core functionality are provided and in which peripheral area the contact pads for the peripheral functionality are provided, wherein

the carrier substrate comprises at least one interconnect for interconnecting the ground connections of the peripheral functionality and the core functionality, and

means for decoupling the voltage supply of core and peripheral functionality to the common ground are present.

An electronic device as claimed in claim 1,

wherein the semiconductor device is placed on the carrier substrate in a flip chip orientation, the bond pads at the semiconductor device and on the first side of the carrier substrate being positioned in a corresponding configuration, and wherein a heat spreading layer is provided on the first side of the carrier substrate and on a side of the semiconductor device facing away from the side of the bond pads.

9. (*Currently Amended*) An electronic device comprising:

at least one semiconductor device provided, on a side, with a plurality of bond pads; and

a carrier substrate comprising a layer of electrically insulating material and having a first side and an opposed second side, the first side and the opposed second side are each provided with an electrically conductive layer, on which first side bond pads are present which are suitable for coupling to the bond pads of the at least one semiconductor, and on which second side contact pads for external coupling are provided, the contact pads and the bond pads being electrically interconnected according to a desired pattern, a first portion of the contact pads being defined for ground connection, a second portion of the contact pads being defined for voltage supply connection and a third portion of the contact pads being defined for signal transmission, in said electronic device

the at least one semiconductor device is provided with core functionality and peripheral functionality, the core functionality and the peripheral functionality each being provided with voltage supply connection and ground connection,

the carrier substrate is laterally subdivided into a core area and a peripheral area, in which core area the contact pads for the core functionality are provided and in which peripheral area the contact pads for the peripheral functionality are provided, wherein

the carrier substrate comprises at least one interconnect for interconnecting the ground connections of the peripheral functionality and the core functionality, and

means for decoupling the voltage supply of core and peripheral functionality to the common ground are present, and

An electronic device as claimed in claim 1, further provided with a supply series inductor.

10. (*Cancelled*)